

Title (en)

MACHINE LEARNING FOR SPLICE IMPROVEMENT

Title (de)

MASCHINENLERNEN FÜR SPLEISSVERBESSERUNG

Title (fr)

APPRENTISSAGE AUTOMATIQUE POUR L'AMÉLIORATION D'ÉPISSURES

Publication

EP 3990269 A4 20221123 (EN)

Application

EP 20841587 A 20200710

Priority

- US 201962873303 P 20190712
- US 2020041661 W 20200710

Abstract (en)

[origin: WO2021011397A1] Systems and methods of machine learning for splice improvement. A system can receive, from one or more sensors, one or more values corresponding to manufacture of a tire by the one or more pieces of tire manufacturing equipment. The systems can determine one or more metrics based on the one or more values. The systems can generate a matrix based on the one or more values and the one or more metrics. The systems can predict, via input of the matrix into a machine learning model, a value for a splice tolerance metric. The systems can determine, based on the value for the splice tolerance metric, a parameter of at least one piece of equipment to adjust. The systems can provide a command to adjust the piece of equipment responsive to the value of the splice tolerance metric.

IPC 8 full level

B29D 30/00 (2006.01); **B29D 30/08** (2006.01); **G06N 3/04** (2006.01); **G06N 3/08** (2006.01); **G06N 20/00** (2019.01)

CPC (source: CN EP US)

B29D 30/005 (2013.01 - CN EP US); **B29D 30/0061** (2013.01 - CN EP US); **G06N 3/045** (2023.01 - CN); **G06N 3/084** (2013.01 - CN); **G06N 20/00** (2019.01 - CN US); **B29D 2030/0055** (2013.01 - CN EP US); **B29D 2030/0066** (2013.01 - CN EP US); **G06N 3/045** (2023.01 - EP US); **G06N 3/082** (2013.01 - US); **G06N 3/084** (2013.01 - EP US)

Citation (search report)

- [Y] US 2007023952 A1 20070201 - BULL JEFFREY F [US], et al
- [Y] WO 2010126498 A1 20101104 - MICHELIN RECH TECH [CH], et al
- [Y] US 2012267031 A1 20121025 - MAWBY WILLIAM DAVID [US], et al
- See also references of WO 2021011397A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2021011397 A1 20210121; BR 112022000518 A2 20220303; CN 114206599 A 20220318; EP 3990269 A1 20220504; EP 3990269 A4 20221123; EP 3990269 B1 20240828; JP 2022536545 A 20220817; JP 7218475 B2 20230206; US 12090718 B2 20240917; US 2022203637 A1 20220630

DOCDB simple family (application)

US 2020041661 W 20200710; BR 112022000518 A 20200710; CN 202080055457 A 20200710; EP 20841587 A 20200710; JP 2022501371 A 20200710; US 202017626453 A 20200710